STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF PUBLIC SERVICE ELECTRIC AND GAS COMPANY FOR APPROVAL OF THE ENERGY STRONG PROGRAM	)	**BPU DOCKET NOS. EO13020155 AND GO13020156**

DIRECT SUPPLEMENTAL TESTIMONY OF CHARLES P. SALAMONE P.E. ON BEHALF OF DIVISON OF RATE COUNSEL

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PUBLIC VERSION

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I. STATEMENT OF QUALIFICATIONS

Q. Please state your name and business address.

A. My name is Charles P. Salamone. I am the Owner of Cape Power Systems Consulting, LLC a power systems consulting Company with an address of 23 Westerly Drive, Bourne, Massachusetts and I am subcontracting with Synapse Energy Economics, Inc. with an address of 485 Massachusetts Avenue, Cambridge, Massachusetts.

Q. On whose behalf are you submitting testimony in this proceeding?

A. I am submitting supplemental testimony on behalf of the New Jersey Division of Rate Counsel in accordance with the revised schedule set forth in the Order issued by Commissioner Joseph L. Fiordaliso on November 1, 2013.

Q. Please describe your education and professional background.

A. I have described my education and professional background in my direct testimony filed before the New Jersey Board of Public Utilities on October 16, 2013 ("Direct Testimony") in this matter.

Q. Have you previously testified before utility regulatory agencies?

A. Yes. I have described my testimony experience in my Direct Testimony filed before the New Jersey Board of Public Utilities on October 16, 2013 in this matter.

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. What is the purpose of your supplemental testimony in this proceeding?

The purpose of my supplemental testimony is to review engineering aspects of the supplemental materials ("supplemental materials"), to wit, the cost-benefit analysis of the Energy Strong Program prepared by the Brattle Group ("Brattle Report") supplied in response to RCR-ECON-5 Supp'l. and the engineering reports on the proposed substation improvements supplied by Public Service Electric and Gas Company ("PSE&G" or "the Company") on November 15, 2013 ("Engineering Reports"). The supplemental materials pertain to the electric component of the Company's "Energy Strong" program that is the subject of this petition. Rate Counsel witness Dr. David Dismukes will address the economic impact and the break-even analysis methodology presented in the Brattle Report.

My testimony will review the information provided in the supplemental materials concerning the proposed program.

Q. What are your findings?

A. My findings are summarized as:

1. A comparison of the Brattle Report and the Company's assumptions demonstrate how the financial value of benefits attributable to the proposed Energy Strong program is extremely sensitive to input assumptions. Changing a single input assumption for the assigned value of lost load for the small commercial and industrial sector, for example, changes the benefits of the proposed Energy Strong

program by $20 billion. Use of highly speculative estimates as was done by PSE&G and Brattle Group put into question the integrity of their analysis.

2. The Engineering Reports commissioned by the Company consistently chose the higher cost solution based on purely subjective and unsubstantiated conclusions that were not explained in the analyses found in the Engineering Reports.

3. Both the Company and the Engineering Reports contend that floodwall alternatives are more costly and riskier options due to risk of failure, yet neither the Company nor the Engineering Reports attempt to quantify those costs or risks.

4. Cost estimates provided by the Company are far from fully developed and, based on the proposed rate treatment, customers are now faced with supporting a 50% cost adder in the form of contingency estimates. Typical engineering estimates for capital projects include some degree of uncertainty that is captured in a contingency value. Typically customers do not support these costs as they only pay for the actual capital cost plus overheads once a project has been completed and is in service.

5. Stranded costs resulting from the replacement of equipment have not been included in any of the cost-benefit analyses of the Energy Strong Program. Appropriately capturing this potentially significant cost impact could further degrade the highly marginal economic benefits of the Energy Strong program.

6. As I have previously stated in my direct testimony, the Company should conduct the necessary detailed analyses to adequately support the cost-effectiveness of each element of the programs it is proposing to implement before funding is

approved. This includes cost-effectiveness analyses of specific projects proposed within each program including the impact of stranded costs. The Company should also provide a comprehensive analysis of the alternatives that were considered, documented evidence supporting the level of customer outage avoidance and reduction in outage duration as well as a fact-based rationale justifying why each specific proposed alternative was chosen to ensure that the Company finds the most appropriate solution at the least cost. To date, such a comprehensive analysis has not been undertaken by the Company.

In sum, there still remains insufficient information as currently proposed to justify the approval of $1.7 billion for the electric component of this petition for the next five years that is ultimately part of a $2.7 billion ten-year program. Furthermore, my supplemental testimony reiterates that the Company is not currently precluded from undertaking any of these capital investments, and has undertaken similar projects, under its current distribution budgets in order to maintain safe, adequate, and proper service.

III. BRATTLE REPORT

Q. Please summarize your understanding of the Brattle Report

A. PSE&G commissioned the Brattle Group, an economic consulting firm, to estimate the benefits of the Company's proposed Energy Strong program.[1] Major elements of the quantification of the benefits include estimates for the following:

1) The number of reduced outages for each proposed element of the Energy Strong program;[2]

2) The reduced outage duration for each proposed element of the Energy Strong program;[3]

3) The percentage of customers who would benefit from each element of the proposed Energy Strong program;[4]

4) The Value of Lost Load ("VOLL") for each customer class;[5] and

5) An assumption of the probability of a system-wide outage.[6]

Each element of the analysis required the authors of the Brattle Report to rely on a host of assumptions concerning all future storm conditions and system wide customer impacts in order to arrive at their quantification of benefits. These are all highly speculative estimates that are based on nothing more than the conjectural judgments of the Company.[7] Additionally, other interveners (AARP and NJLEUC) have commented on the appropriateness of the VOLL estimate used by the Company and the Brattle Group. There has been no independent evaluation of these critical inputs to the analysis.

[1] RCR-ECON-5 Supplemental, page 8
[2] RCR-ECON-5 Supplemental, Table III-7, page 67
[3] RCR-ECON-5 Supplemental, Table III-7, page 67
[4] RCR-ECON-5 Supplemental, Table III-7, page 67
[5] RCR-ECON-5 Supplemental, Table II-3, page 51
[6] RCR-ECON-5 Supplemental, page 64
[7] RCR-ECON-5 Supplemental, page 8

Q. **Are the Company's engineers or the Brattle Group aware of studies to quantify reduced outages and durations as a result of asset hardening?**

A. No, neither the Brattle Group nor the Company's engineers were aware of any other studies that quantified the benefits associated with asset hardening.[8] These inputs are critical to the cost benefit analysis and the values used are both unsubstantiated and derived exclusively by the Company.

Q. **Do you find it problematic that the quantification of benefits does not contain documented studies to support the Company's assumptions?**

A. Yes, I find it problematic that the quantification of the alleged benefits associated with the Energy Strong program, which seeks $1.7 billion over five years and $2.7 billion over ten years, are based on the Company's engineer's estimates[9] of reduced outages and durations which have not been quantified in any studies or substantiated by any independent assessment. In effect, the Company is asking the Board and ratepayers to place complete trust that the benefits, which are based on nothing more than its judgmental assumptions, for the proposed Energy Strong program will, in fact, materialize.

Q. **Do you have concerns regarding the Brattle Group's assumption of a system-wide outage event used in the Brattle Report?**

[8] RCR-G-POL-129; RCR-G-POL-137
[9] RCR-ECON-5 Supplemental, page 8

A. Yes, the Brattle Group's premise of the quantification of benefits is based upon a system-wide outage, which, prior to Superstorm Sandy, the Company had never experienced in its 100-year operational history.[10] As I noted in my direct testimony, a more realistic scenario would be major outage events such as Hurricane Irene and the 2011 October Snow Storm. However, the Brattle Group did not conduct its break-even analysis to extend to non-system wide outage events such as Hurricane Irene and the 2011 Snowstorm.[11] The Brattle Group's response to the request for analysis based on Hurricane Irene and the 2011 October Snow Storm was that there are a number of permutations of the number of storms and storm conditions that could lead to the cumulative values derived in the report.[12] This response does not address the concerns that underlie the evaluation. Under non-Superstorm Sandy major events, the avoided customer outage hours are greatly reduced and this would lead to a conclusion that it may be many years, possibly exceeding the lifetime of the equipment, before the cumulative values used to justify the Energy Strong program are met. This would make the proposed program far less cost-effective than portrayed in the Brattle Report.

Q. **Did the Brattle Report use the same assumptions as the Company when it conducted its break-even analysis?**

[10] RCR-ECON-5 Supplemental, page 12; RCR-E-179
[11] RCR-E-181
[12] RCR-E-181; RCR-ECON-5 Supplemental, page 106.

A. No, the Brattle Group and the Company used different assumptions for a number of elements in each of their respective analyses that is shown in greater detail in the response to RCR-E-169.[13] Some of the differences include: the duration of substation system-wide outages (five days for the Company versus three days for Brattle Group), the number of customers impacted by changing overhead distribution standards from 4kV to 13kV (30,449 for the Company versus 34,495 for Brattle Group), and the value of lost load for the small commercial and industrial sector ($314.63/kWh for the Company versus $49.17/kWh)

Q. **Do you have concerns regarding the difference in the Brattle Group's assumption of the $49.17/kWh for value of lost load versus the Company's assumption of $314.63/kWh for the value of lost load for the small commercial and industrial customer class?**

A. Yes, the difference in the two values of lost load for small commercial and industrial customers' avoided costs has a significant impact on the overall conclusions regarding the benefits of the Energy Strong program. The Brattle Group uses the median value of $49.17/kWh since it believed that the value represented a more appropriate value for this analysis.[14] The Company uses the mean value of $314.6/kWh in its calculations.[15]

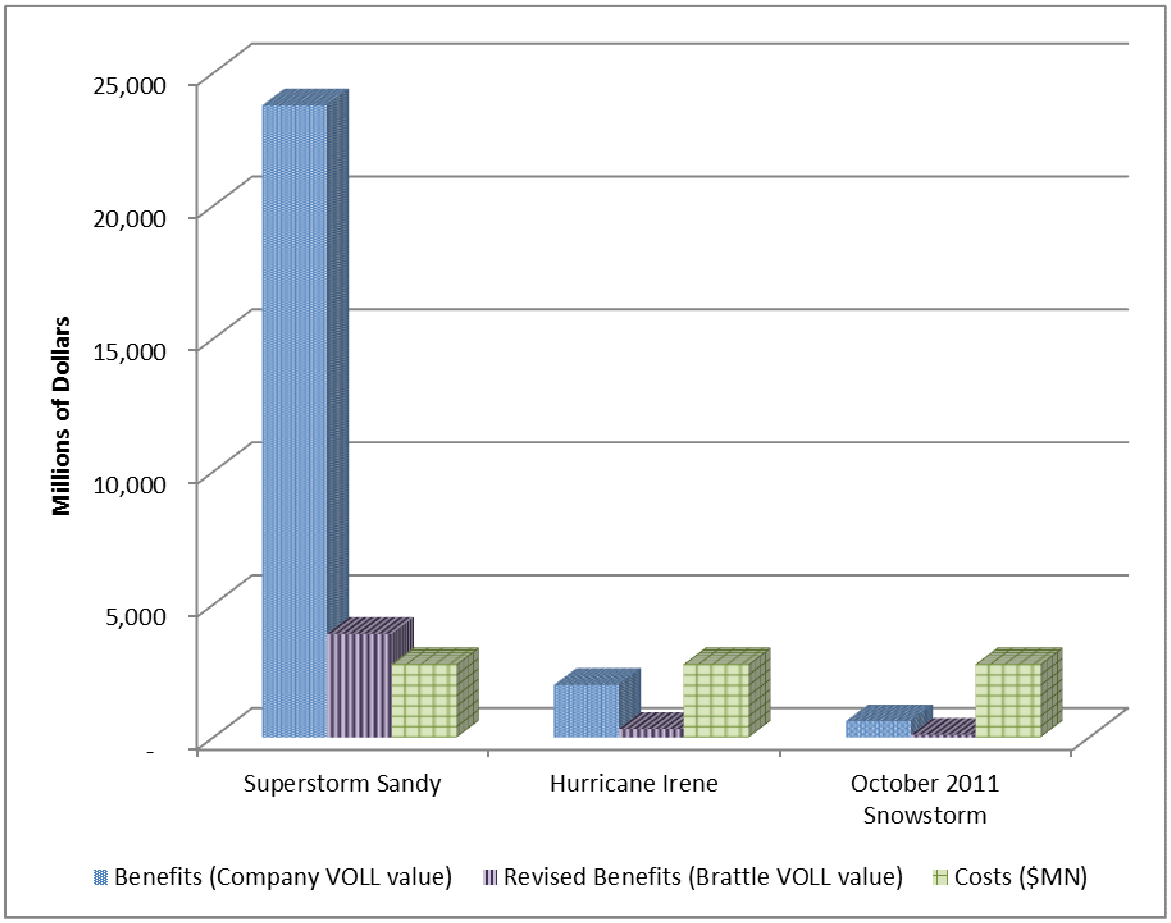
[13] RCR-E-169
[14] RCR-Econ-5, Supplemental. Page 36. RCR-E-170
[15] As noted by the Company in S-PSEG-ES-2, the value ($296.1/kWh) in the report was in 2008 dollars and escalated to 2012 dollars by the Company.

Q. **What is the impact of the difference in this single input value in the Company's calculation of benefits for the Energy Strong Program?**

A. In my Direct Testimony, I noted that the Company's calculation of the benefits of the Energy Strong program is $23.7 billion.[16] When the Company recalculated the benefits of the Energy Strong Program by simply changing the VOLL from $314.6/kWh to $49.17/kWh, it reduced the benefit of the Energy Strong program from over $24 billion to just $4 billion.[17] Thus, this single input value change represents a $20 billion reduction in benefits which reduced the total value of lost load by 84% of the Company's original estimated benefits. This is shown graphically in SCHEDULE CPS Supp 1 below, which also includes a similar calculation of the change in benefits under the 2011 October Snow Storm and Hurricane Irene scenarios as compared to the proposed cost of the ten-year Energy Strong program.

[16] Direct testimony, Schedule CPS-6
[17] RCR-E-228

SCHEDULE CPS Supp 1: Impact of Quantification of Benefits and Costs of Proposed Energy Strong Program under Major Event Scenarios Based on VOLL Values Used by the Company and the Brattle Group[18]



Q. Are you concerned about the difference between the two VOLL assumptions?

A. Yes, the results show that the value of benefits for the Energy Strong program are very susceptible to the perceived value of lost load. This value is an

[18] Based on RCR E-228 and RCR-E-131

unsubstantiated number which could vary significantly from customer to customer depending upon their particular circumstances. Concluding that a program as costly as the Energy Strong program is cost effective based on the inputs and calculations that have been presented by the Company is highly suspect and is little more than speculation concerning any real economic benefits.

Q. Do you believe the Brattle Group's break-even analysis provides a convincing estimate of the value of the Energy Strong program?

A. No, I do not. Their analysis was based almost exclusively on inputs provided by PSE&G without substantiation. As shown above, the input assumptions of both costs and benefits can radically affect the outcome of the analysis. Furthermore, the underlying assumptions are all based on a highly unlikely system-wide event. While the Brattle Report suggests that a break-even point can be reached in a short period of time, I believe that the break-even point, if based on an independent assessment of assumed inputs, would be far longer in duration and, as in the case of the Company's cost-benefit evaluation, would prove to be an uneconomic and impractical use of ratepayer funds as a means to mitigate the effects of typical major storm events. I understand that Dr. Dismukes addresses concerns regarding the break-even analysis in his supplemental testimony.

IV. ENGINEERING REPORTS

Q. Did you review the Engineering Reports concerning substation improvements provided by PSE&G?

A. Yes. I have reviewed the Engineering Reports provided by the Company as developed by outside engineering firms concerning the estimated cost of two and, in a few cases, three alternatives for mitigation of flood conditions for 28 of the 31 substations that were impacted by flooding either during Superstorm Sandy or Hurricane Irene.[19]

Q. How do the Engineering Reports' estimates compare to the Company's estimates provided in PSEG-ES-79 and the Black and Veatch Reports?

A. As part of discovery response S-PE&G-ES14, PSE&G provided the Preliminary Substation Flood Impact Report dated October 2012 by Black & Veatch ("Black and Veatch Report"). The Black & Veatch looked at twelve substations impacted by Hurricane Irene and made recommendations to provide appropriate flood protection measures. Schedule CPS Supp 2 compares the cost estimates between the Company's recommended action from PSEG-ES-79, the Black and Veatch floodwall estimates, and the Engineering Reports. The Engineering Reports include estimates for each of the three examined alternatives where the information was provided and an estimate for the recommended course of action.

[19] The Bayway Switching Station that is part of the Bayway Substation had a separate engineering cost estimate. It is my understanding that Hudson and River Road substations have been removed from the proposed Energy Strong petition, so no engineering reports were provided. The Cliff Road substation has also been removed from the proposed Energy Strong Program, but an engineering report was provided.

Schedule CPS Supp 2 also includes the Company's prioritization of each substation.[20] In PSEG-ES-79, the Company's substation program cost estimate was $779 million. The aggregate cost estimate of the Engineering Reports' recommended course of action for each substation is **[Begin Confidential]** [redacted] **[End Confidential]** The estimated aggregate cost estimate reported by Black and Veatch was $10.1 million (2012$) versus **[Begin Confidential]** [redacted] **[End Confidential]** for the same substations based on the engineering reports.

[Begin Confidential]

[20] S-PSEG-ES-33, G-POL-20

Schedule CPS Supp 2 Summary of Company Prioritization and Cost Estimates for Substation Program

Station	S-PSEG-ES-33 Priority	*G-POL-20 Priority*	G-POL-20 and Engineering Reports Customers Served	PSEG-ES-79 Cost Estimate	Engineering Reports Floodwall Option Estimate	Engineering Reports Raise and Rebuild Option Estimate	Engineering Reports Eliminate Option Estimate	Engineering Reports Recommended Action Estimate	Black & Veatch Floodwall Estimate
Sewaren Switching Station230/138/26kV	1	High	93,999	$41,000,000					
Linden Switching Station230/138/26kV	2	High	60,119	$19,000,000					
Bayonne Switching Station 138/26/13	3	High	56,881	$51,000,000					
Marion Switching Station 138/26kV	4	High	44,508	$25,000,000					$1,715,000
New Milford	5	High	40,610	$34,000,000					$1,900,000
Hudson Switching Station 230kV	6	High	31,549						
Essex Switching Station230/138/26kV	7	High	29,971	$41,000,000					
Newark Airport Bkr Station	8	High	34	$6,000,000					
Hoboken Substation	9	High	26,276	$35,000,000					
Hillsdale	10	High	19,973	$17,000,000					$1,525,000
Somerville Substation	11	High	13,567	$17,000,000					$750,000
Jackson Road	12	High	11,090	$30,000,000					$1,170,000
Marshall St Substation	13	Medium	8,717	$26,000,000					
Rahway Substation	14	Medium	7,332	$13,000,000					$730,000
Cranford	15	Medium	6,914	$67,000,000					$525,000
River Rd Substation	16	Medium	6,601						
Bayway Substation	17	Medium	5,651	$52,000,000					$310,000
Bayway Switching	17	Medium	36,305	$0					
Hackensack Substation	18	Medium	5,451	$39,000,000					
Madison Substation	19	Medium	5,431	$91,000,000					
South Waterfront Substation	20	Medium	5,235	$25,000,000					
Ewing	21	Low	4,475	$17,000,000					$570,000
Belmont	22	Low	3,923	$3,000,000					$320,000
Jersey City 13kV Substation	23	Low	3,456	$17,000,000					
St. Paul's Substation	24	Low	3,222	$6,000,000					
Garfield Place	25	Low	3,155	$20,000,000					$150,000
Little Ferry Substation	26	Low	2,964	$6,000,000					
River Edge	27	Low	2,298	$31,000,000					$450,000
Howell Substation	28	Low	2,210	$17,000,000					
Cliff Rd Substation	29	Low	659						
Third St Substation	30	Low	350	$20,000,000					
Port St Substation	31	Low	260	$13,000,000					
Total			**543,186**	**$779,000,000**					**$10,115,000**

[End Confidential]

Q. Do you agree with the method the Engineering Reports used for selecting the most cost effective alternative?

A. No, I do not. The engineering firms performed an assessment of the construction requirements needed for (1) a flood wall installation alternative, or (2) a raise equipment alternative and, in a few cases, (3) a remove from service alternative. However, the engineering firms, in my opinion, failed to follow appropriate procedures for a determination of the most cost-effective alternative. The analyses included in the Engineering Reports provide cost assessments of engineered construction alternatives. The costs that are established from this assessment are then completely ignored in the recommendations put forward. In almost every case the recommendation is based solely on PSE&G's judgment concerning the maintenance costs and perceived risks associated with the alternatives.

The Company has acknowledged that the engineering firms did not include any factual evaluations concerning either the maintenance costs[21] or risks associated with any of the alternatives. Yet, the selection of alternatives, which was as much as $30 million more expensive in one instance, was based solely on an argument that the rejected alternative had higher maintenance cost and higher risks.[22] This is hardly an acceptable basis for selection of a course of action, particularly since

[21] RCR-E-187

there was no factual evaluation of maintenance costs or risks performed by the engineering firms. A decision concerning such a significant expense should not be founded on pure conjecture but, rather, must be based on facts and careful analysis. The engineering firms have failed to provide either of these in support of their recommendations and, as such, have failed to follow appropriate methods for making a determination of a cost-effective alternative.

Q. Did PSE&G provide any information concerning operating expenses for its floodwall options?

A. Yes. The Company provided an estimate of maintenance costs[23] after the Engineering Reports had been completed. They provided an estimate of $3 thousand to $5 thousand per year per substation.[24] Based on general economics the 40-year present value[25] of a $5 thousand annual expense is approximately $71 thousand.[26] This level of maintenance costs is hardly a basis for justifying choosing an alternative measure that is as much as $30 million more expensive. In fact, the argument that maintenance costs justify any of the recommendations put forward is completely unfounded.

Q. **What are your conclusions concerning the Engineering Reports?**

A. Although the Engineering Reports recommend a less expensive alternative than PSE&G's proposal their recommendations are nevertheless still too expensive.

[23] RCR-E-193
[24] RCR-E-193
[25] 40 years was used as the estimate of the life of the plant.
[26] Assuming the 7.01% discount rate used in RCR-Econ-5 Supplemental.

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The Engineering Reports, developed by the firm contracted by the Company, recommend alternatives that in total are almost **[Begin confidential]** [redacted] **[End confidential]** more expensive than can be justified and their recommendations should be rejected. Putting aside the concern over the issue of cost-benefit for any of the proposed programs, there is no factual justification for accepting the recommendation put forward by the engineering firms and proposed by the Company concerning the substation mitigation program.

V. COST ESTIMATES

Q. Do the individual engineering report cost estimates account for project uncertainty?

A. Yes, each engineering cost estimate in the Engineering Reports includes a 50% contingency factor to address project uncertainty. For example, a cost estimate of $15,000 includes 1) $10,000 for estimated project cost plus 2) $5,000 ($10,000*50%) of uncertainty estimates. Thus, the aggregated cost estimate for the Engineering Reports recommended capital project incorporates **[Begin Confidential]** [redacted] **[End Confidential]** of project uncertainty.

Q. Do you believe this is an appropriate level of cost estimate accuracy for approval by the Board?

A. No I do not. The review and approval of capital projects, particularly when reviewing alternatives, requires the use of more accurate estimates before

rendering any level of approval to proceed with construction of a project. In addition to the improved certainty of costs there is also greater validity to any comparison of alternatives.

Additionally, under normal circumstances capital costs seen by customers are the actual capital cost of the project since they would be in-service before being included in rates. In this case PSE&G has proposed a process in which customers would be funding this fictitious cost.

Finally, it is my understanding that PSE&G's own internal process for the review and approval of capital projects would require no more than a 10% contingency estimate. I was Rate Counsel's expert witness for electric project issues in the Company's CIP I case and in that case I reviewed PSE&G's description of its internal capital budgeting process where major projects (exposure over $100 million) required re-approval by the Board of Directors if the capital investment exceeded the amount previously authorized by more than 10%.[27] In addition, projects required re-approval by the Company's capital review Committee, and a report to the Board of Directors, if the capital investment exceeded the amount previously authorized by more than 5%.[28]

In my opinion PSE&G has not progressed far enough in its capital cost estimation process to provide a cost estimate that would be appropriate for consideration for

[27] *See* response to RC-PS-IN-A-29, BPU Dkt. No. EO09010050, dated February 1, 2009 (attached).
[28] *Id.*

approval by the Board. It would be inappropriate for the Board to approve these projects and allow them to be charged to ratepayers with a 50% contingency included.

VI. STRANDED COSTS

Q. Did the Company account for undepreciated plant balances in its supplemental analyses?

A. No. Although the Engineering Reports contained cost estimates for the replacement of specific components for each substation, the analyses did not include specific estimates for plant balances since the Company concluded that the determination of retired equipment would not be identified until actual work is done.[29] The Company had noted that many of the substations are at or near the end of their book life.[30] However, this may not actually be the case. While many of the substations were originally constructed in the 1950's and 1960's, the Company did not indicate the age of specific components within each substation, which may have been replaced during the course of operation of each substation.[31] For example, as part of its Capital Infrastructure Programs, CIP I and CIP II, the Company replaced step-down transformers, circuit breakers and switches in a number of substations.[32] Since this equipment, if replaced, would

[29] RCR-E-200, RCR-A-24
[30] RCR-E-200
[31] RCR-E-15
[32] *See* I/M/O PSE&G, BPU Dkt. Nos. EO09010049, GO09010050 & ER09110936, and I/M/O PSE&G, BPU Dkt. Nos. EO10110823 & GO10110824, OAL Docket No PUC 01534-11 (Decision and Order

not be at the end of its book life, it would inevitably lead to a stranded cost component that the Company has not yet accounted for explicitly.[33]

Inclusion of stranded costs in the cost-benefit analysis would lead to even greater degradation in the purported economic benefits of the Energy Strong program. This is an additional instance where insufficient information has been included in the design and assessment of the Energy Strong program.

VII. SUMMARY

Q. Please summarize your conclusions and recommendations regarding the Supplemental Materials.

My review and analysis shows that, contrary to the voluminous amount of information provided, PSE&G continues to provide insufficient detail, insufficient studies and analysis, and insufficient justification to embark on what could ultimately be a $3.94 billion process to dismantle and rebuild significant elements of the Company's distribution system. For example, as a result of differences in a single input assumption, the proposed programs are at best justifiable only under what can be considered as an extraordinarily rare event and the consequential change in the VOLL reduces the overall quantification of benefits by almost $20 billion. Most significantly, the Supplemental Materials, based on the Company's

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Approving Initial Decision and Stipulation, July 14, 2011), Appendix B, p. 2 of 4 [*e.g*. ED-011, ED-012] ("CIP I"); I/M/O PSE&G, BPU Dkt. No. EO11020088, and I/M/O PSE&G, BPU Dkt. No. GO10110862 (Decision and Order Approving Stipulation, July 14, 2011), Attachment B, p. 1 of 4 (e.g. ED2-004) ("CIP II").

[33] RCR-E-119

metrics, show that none of the programs proposed are cost effective for major storm events that are likely to occur in New Jersey as I discussed in my initial direct testimony. As a result, the Company has proposed to justify the program using a novel break-even analysis that has not been accepted in any jurisdiction to date. I continue to believe it is highly questionable that funding the proposed Company program can be found to be reasonable and prudent based on the information provided. I continue to recommend that the Board undertake the following recommendations from my direct testimony:

1. PSE&G should conduct the necessary detailed analyses to adequately support the cost-effectiveness of each element of the programs it is proposing to implement before funding is approved. This includes cost-effectiveness analyses of specific projects proposed within each program. The Company should also provide clear identification of the needs that are being addressed, an analysis of the alternatives that were considered and a factual based rationale supporting why each specific proposed solution was chosen.

2. PSE&G should implement a phased approach to sequence work based on its short, medium, and long-term planning process. Projects should not be undertaken unless the Company's planning process determines that the investment is justified and the benefits of the project exceed costs.

3. PSE&G should develop a program that is aimed at addressing more likely storm events. This could lead to the development of a far less costly program that has much greater benefits. It may also serve as a basis for consideration of the incremental benefits versus the incremental costs of designing a program that is

aimed at addressing catastrophic storm conditions such as those that occurred with Superstorm Sandy versus designing one that addresses more likely storm conditions. This assessment should be based on a probabilistic weather event evaluation conducted by qualified entities to better quantify the level of risks being addressed.

Q. Do you have any recommendation for the Board to consider?

A. Yes, I continue to recommend that the Board order the Company to investigate least-cost alternatives that will meet its stated goals of preparing the Company to ameliorate the effects of future reasonably foreseeable major storm events. In the event that the Board approves elements of the Energy Strong program, the Board should direct the Company to implement only those elements that are cost-effective and are projects that have demonstrated, verifiable benefits for substantially reducing the number of customer outages and/or reducing outage durations during a major storm event. Only if a project or element proves to be cost-effective for likely storm events and at least cost should it be approved. As I noted previously in my direct testimony, the Company has indicated that the proposed Energy Strong program would reduce customer outage durations by 62,714,213 hours or 39% of customer outage hours.[34] This means that there would still be approximately 99,781,420 customer outage hours for a Superstorm Sandy-like type of event.[35]

[34] RCR-E-2
[35] RCR-E-6

Q. Does this conclude your testimony?

A. Yes. However, I reserve the right to supplement my testimony subject to further updates to discovery and information provided by the Company or other interveners.

ATTACHMENT

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

BUDGETING PROCESS

QUESTION:
Please provide a narrative of the Company's capital budgeting process, including samples of any budgeting reports and ranking procedures, for:

a. short-term capital budgeting, one year or less;

b. near-term capital budgeting, approximately five years or less; and

c. long-term capital budgeting, over approximately five years.

ANSWER:
In response to the above question, the following files are attached. Please note that all capital projects go through the same Utility capital process and review regardless of the project duration:

Attachment 1: A narrative of the Company's capital budgeting process
Attachment 2: The Utility's 2008 Integrated Capital Process
Attachment 3: A narrative of the Utility's capital prioritization process
Attachment 4: Portfolio Summary Reports extracted from IES

ATTACHMENT 1

The following is an excerpt from the 2009 PSEG RISK MANAGEMENT PRACTICE regarding the Company's capital process.

K. PSEG CAPITAL REVIEW COMMITTEE

All capital investment requests must be submitted to the PSEG Capital Review Committee (CRC) in accordance with this Practice. The CRC will review the Public Service Enterprise Group 2009-2013 Outlook (Five-Year Business Plan) and individual project requests at an annual CRC Project Review meeting held prior to the completion of the Five-Year Business Plan. The Five-Year Business Plan is presented to the Board of Directors for approval at the December Board meeting. The approval of the Business Plan by the respective Board of Directors, however, does not constitute pre-approval of individual capital investments. The CRC will also review any emergent capital investment request that occurs during the year. Quarterly meetings will be scheduled and additional meetings may be called as needed.

The CRC consists of the following members: the CFO of PSEG, the President and COO of PSEG Power, the President of Fossil, the President and COO of PSE&G, the President and COO of Holdings, the President and COO of Services, and the Executive Vice President – Planning and Strategy. The CFO of PSEG Chairs the CRC.

CRC Advisors support the CRC. CRC Advisors may attend CRC meetings to provide subject matter advice and guidance and may be designated by a CRC member to vote in absence of a CRC member. Advisors to the CRC are leaders of functions that cut across all PSEG organizations plus representatives from Power and PSE&G. The CRC Advisors are the Vice President and CIO - Information Technology, the CRO of PSEG, the Vice President - Supply Chain Management, the Vice President - Environmental Health and Safety, the Vice President - Finance (Power), the Vice President - Finance (PSE&G), and the Director – Financial Planning and Budgeting.

Advisors will receive all CRC correspondence and attend CRC meetings at their discretion, consistent with competing priorities, in respect of matters relevant to their respective areas of responsibility. Advisors, along with CRC members, are expected to raise issues and concerns, challenge the information presented in order to ensure adequate due diligence, and supply clarifying information as it pertains to their area of professional expertise. Advisors may be excluded from executive session.

A quorum of the CRC is needed to vote to approve capital expenditures. A quorum will consist of four of the CRC members or their designees (each of whom must be a CRC Advisor), one of whom must be the CFO of PSEG, or his designee (who must be a CRC Advisor). Each CRC member will have one vote. Project approval requires a majority vote, either at a meeting or by written consent.

Corporate Planning acts as support staff to the CRC to review project investment requests and provide assessment of the quality of the documentation, provide monthly management reports,

identify issues and trends, facilitate meetings and record approvals. The Manager - Planning and Budgeting serves as the CRC Facilitator. It is the responsibility of each Business Unit to schedule any necessary agenda item for capital investment approval by its respective Board of Directors.

K. CAPITAL INVESTMENT

In furtherance of the Company's Five-Year Business Plan of PSEG and its principal subsidiaries, the Company will invest from time to time in energy infrastructure, which includes equity investments (collectively, "Capital Investments") to generate long-term value. Capital expenditures will be identified as part of the five-year capital plan included in the Five-Year Business Plan for each principal subsidiary. The CRC must approve each individual project or group of projects constituting a Capital Investment subject to the qualifications set forth below. It will also review any changes to approved capital projects or any emergent capital investment opportunities that occur during the year.

All Capital Investments require review and approval by CRC, in accordance with CRC Procedures, and then at the appropriate level as set forth below:

Total Exposure in Millions of Dollars (PS Share)

Company	**President**	**PSE&G Board**	**PSEG Board**
PSE&G	Less than 100	100 or more	

In the context noted above "total exposure" is defined to include all anticipated current and future (i) direct, indirect, stand-by and contingent equity investments; (ii) loans; and (iii) support obligations, commitments and guarantees. Total exposure includes investments that are nonrecourse to the respective company or its parent. Total exposure does not include nuclear fuel, Interest During Construction (IDC), Allowance for Funds Used During Construction (AFUDC) "PS Share" means the amount of capital investment on the part of PSEG or any of its wholly or partially-owned affiliates, excluding IDC or AFUDC. "PS Share" does not include any proposed co-owner or partner investment.

Any capital investment exceeding 10% of the amount authorized by any of the above-listed Boards will require re-approval by that Board and any other Board, as applicable, depending on the revised amount of the investment. Any capital investments exceeding previously approved amounts by more than 5% will require re-approval by the CRC and will be reported to the relevant Board at its next regularly scheduled meeting.

With respect to a capital investment for an acquisition, CRC approval is required at the time of acquisition if:

- the acquiring PSEG company will be obligated to incur "Incremental Capital expenditures" (for capital improvements including but not limited to construction or equipment) of $100 Million or more as part of its commitments for the acquisition; or

- Incremental Capital Expenditures for the first five years are projected to exceed $100 million; or
- Incremental Capital Expenditures for the first five years are projected to exceed 50% of the initial investment.

Any project can be reviewed by the CRC at the request of the Chair of the CRC. Once the acquisition has occurred, further CRC approval is required at the time of actual capital expenditure unless the customary level of detail with respect to the expenditure was provided to the CRC at the time of approval of the acquisition or there is a change of more than 5% in the amount previously presented to the CRC.

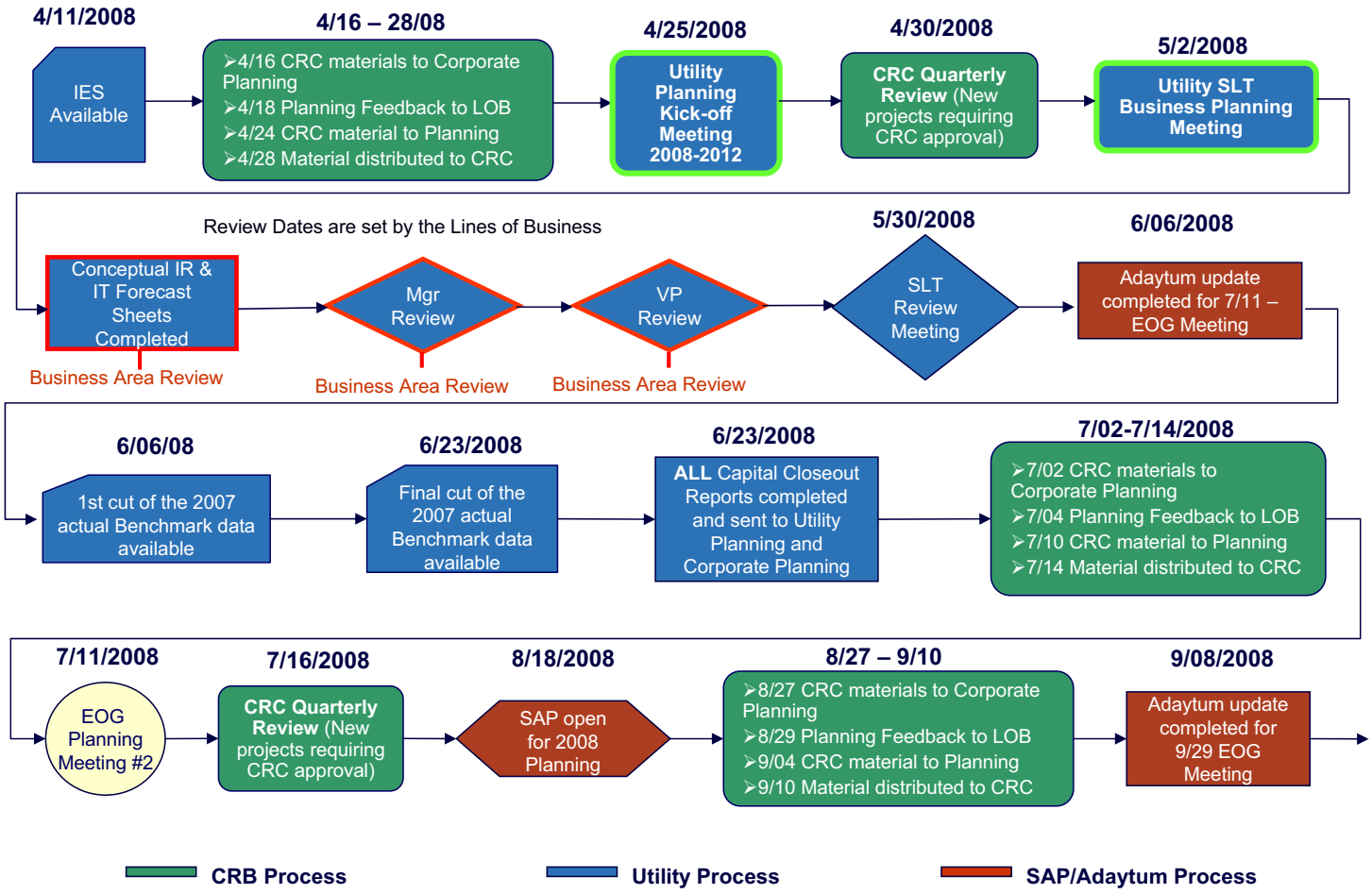
In the event an emergency or circumstances necessitating immediate action requires a capital investment to be undertaken prior to CRC approval, the President (or representative) of the company making the investment will promptly inform the Chair of the CRC and thereafter CRC approval will be obtained at the earliest practicable date.

A small maintenance capital investment of less than $2 million may be made by the President of Power or the President of PSE&G. Such investments when aggregated may not exceed $25 million annually per Company and may not result in exceeding the annual capital budget of either Company. The Chair of the CRC and the Manager – Planning and Budgeting must be promptly informed and investment requests and supporting documentation must be promptly provided by the respective President (or representative).

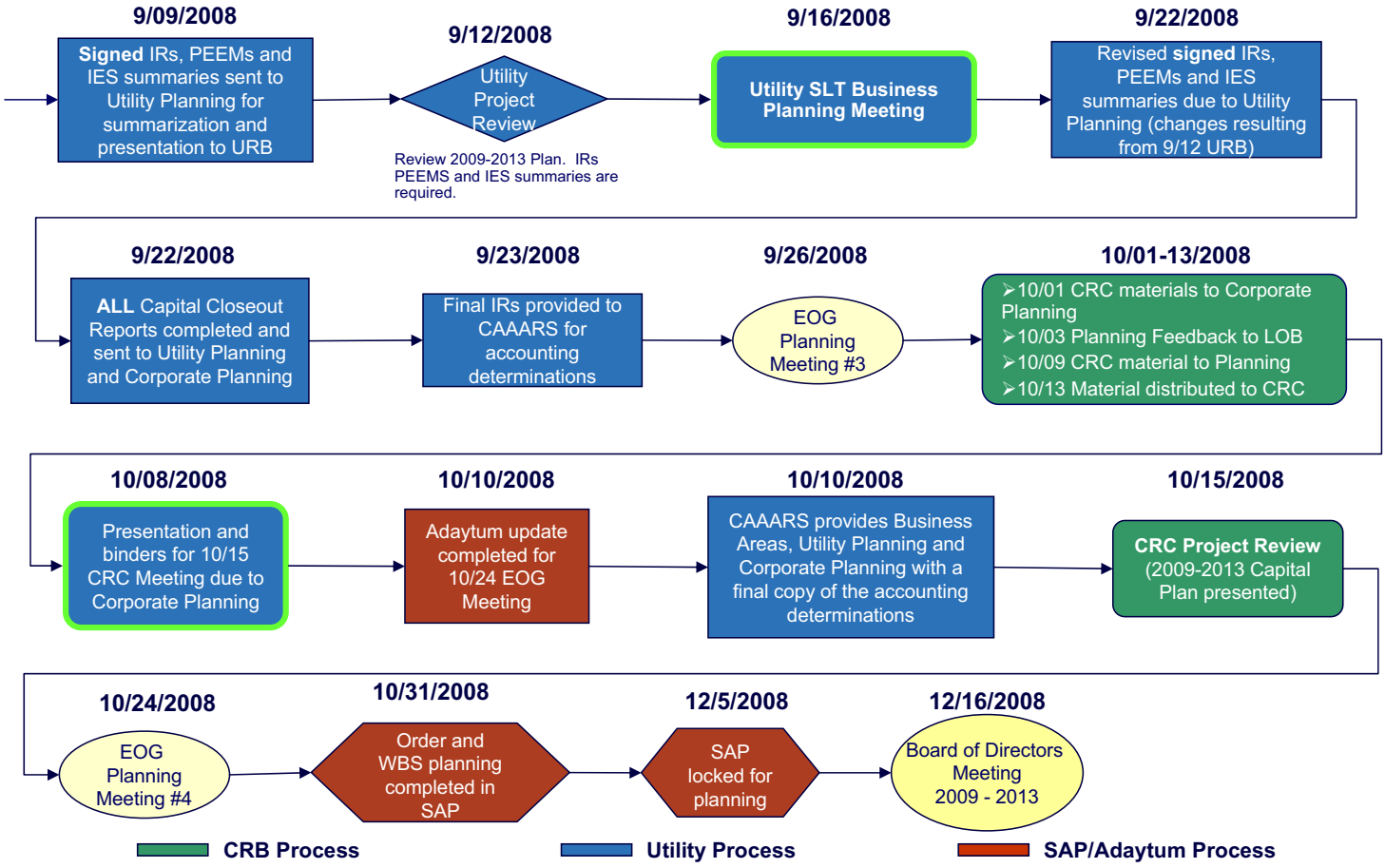
The President or Board of Directors of each company may choose to refer Capital Investments within their respective purviews of authority to the Board of Directors of that Company, or its parent company, respectively, for approval. Any one or series of Capital Investments materially beyond the scope of the Five-Year Business Plan requires appropriate Board approval.

To avoid a conflict of interest, any Capital Investments relating to a non-PSEG entity or affiliate thereof that has a PSEG Director or Officer serving as a Director or Executive Officer of such entity, requires the approval of the PSEG Board of Directors.

ATTACHMENT 2
2008 Integrated Utility Capital Process



ATTACHMENT 2
2008 Integrated Utility Capital Process



ATTACHMENT 3

In 1998-99 a Capital Prioritization Process was developed within Electric and Gas Delivery at PSE&G. It was used for several years to evaluate and select among proposed and competing Capital work in accordance with a weighted value scoring system. In mid-2003 a process and system redesign was begun to better reflect and support performance of more complex business metrics.

PSE&G currently utilizes a structured process which quantifies in many different dimensions the business value and risk associated with each Utility Capital investment being considered for possible work planning and budget inclusion. These dimensions are weighted consistently with other business performance systems, most notably the Balanced Scorecard model. Additional evaluation factors are applied, including legal mandate, operational requirement and the need to preserve continuity of safe and reliable basic Utility service. All of these elements are considered through computer-aided mathematical calculation, coupled with rigorous management scrutiny and judgment, to determine the optimal portfolio combinations of work to be resourced and performed.

This methodology is performed within the system and process known as the Investment Evaluation System, or IES. IES is beginning its sixth year of application at PSE&G, and is heavily utilized in the development of Capital work plans and budgets.

Portfolio Summary Report - 2008 E.D. Capex - 9/13/07

Optimization Result	LOB	Investment ID Number and Name	Investment Capex (Total)	Investment Capex (Selected)	Investment Capex (Deferred)	Highest Basic Risk	Highest Risk ICI	Strategic Objective Score	Value / Dollar Ratio (SV / $MM Cost)
	Elec. Distn. – EDn								
		2008-Edn-CS-KJT-C-21 - Replace Mechanic Street T-3 Transformer	$1,300,000	$0	$1,300,000	16	1.000	0.002	0.001
		2008-Edn-CS-KJT-S-18 - Install 10th 13-kV Feeder At Devil's Brook	$3,180,000	$0	$3,180,000	16	1.000	0.001	0.000
		2008-Edn-CS-KJT-S-19 - Install 26-13 kV Unit At Fernwood	$550,000	$0	$550,000	12	0.500	0.001	0.002
		2008-Edn-CS-KJT-S-2 - Install 4th Feeder At Cox's Corner Substation	$100,000	$0	$100,000	16	1.000	0.001	0.009
		2008-Edn-CS-KJT-S-22 - Install Tenth 13-KV Feeder At Kuser Road I Substation	$100,000	$0	$100,000	16	1.000	0.001	0.009
		2008-Edn-CS-KJT-S-23 - Install 11th 13-KV Feeder At Lawnside	$3,750,000	$0	$3,750,000	16	1.000	0.002	0.000
		DJF-4B - Distribution Inside Plant Critical Spare Transformers - Add Inc.	$4,875,000	$0	$4,875,000	20	2.000	0.002	0.000
		DJF-5B - Anticipated Failures and Replacements of Distribution Inside Plant 26-4KV Transformers - Add Inc.	$2,800,000	$0	$2,800,000	20	2.000	0.001	0.000
		DSB1A-NWPC Base ! - NWP Changeouts - Base Work	$2,676,000	$0	$2,676,000	3	0.010	0.001	0.000
		DSB1B-NWP C Inc - NWP Changeouts - Recommended Increment	$440,000	$0	$440,000	6	0.100	0.001	0.002
		DSB2A-LPGF Base - LPGF Cable Replacement - Base Work	$6,450,000	$0	$6,450,000	8	0.200	0.002	0.000
		DSB2B-LPGF Inc - LPGF Cable Replacement - Recommended Increment	$3,500,000	$0	$3,500,000	6	0.100	0.002	0.001
		DSB3A-BUD Base - BUD Cable Replacement - Base Work	$1,650,000	$0	$1,650,000	20	2.000	0.001	0.001
		DSB3B-BUD Inc - BUD Cable Replacement - Recommended Increment	$650,000	$0	$650,000	10	0.400	0.001	0.001
		DSB4B-Def Add - Defective UG (RF blanket) - Add Inc.	$1,486,969	$0	$1,486,969	20	2.000	0.001	0.001
		DSB7A-M Rufurb Base - Metro UG Refurbishment - Base Work	$3,888,640	$0	$3,888,640	6	0.100	0.002	0.000
		DSB7B-M Refurb Inc - Metro UG Refurbishment - Recommended Increment	$944,048	$0	$944,048	6	0.100	0.002	0.002
		Edn-JFL-47 - Statewide System Reinforcement Blanket Account-Low Priority Work.	$7,440,000	$0	$7,440,000	20	2.000	0.006	0.001
		Edn-M-JFL-40 - Branch Brook Unit Substation.	$3,900,000	$0	$3,900,000	16	1.000	0.001	0.000
		Edn-M-JFL-41 - Third Newark 26-kV Network.	$1,000,000	$0	$1,000,000	16	1.000	0.001	0.001
		Edn-m-JFL-48 - Installation of 8th 13-kV feeder @ Foundry St. Substation.	$3,300,000	$0	$3,300,000	16	1.000	0.001	0.000
		Edn-P-JFL-30 - Installation of the second half of Hoboken Substation.	$1,500,000	$0	$1,500,000	16	1.000	0.002	0.001
		Edn-P-JFL-31 - Garfield Place Substation Elimination.	$2,000,000	$0	$2,000,000	16	1.000	0.001	0.000
		Edn-P-JFL-34 - Installation of Hudson Terrace Unit Substation.	$3,300,000	$0	$3,300,000	16	1.000	0.001	0.000
		Edn-P-JFL-35 - Installation of 9th 13-kV feeder @ Ridgefield Substation.	$2,700,000	$0	$2,700,000	16	1.000	0.001	0.000
		Edn-P-JFL-38 - Installation of 5th 13-kV feeder @ Carlstadt Substation.	$200,000	$0	$200,000	16	1.000	0.001	0.005
		Edn-P-JFL-39 - Installation of 4th 13-kV feeder @ Hillsdale-II Substation.	$200,000	$0	$200,000	16	1.000	0.001	0.005
		JGH-2 - 26kV Line Relay Replacement - Base Work	$1,150,000	$0	$1,150,000	9	0.250	0.002	0.002
		JH-2 - Upgrade Hazeltine Network Monitoring System	$500,000	$0	$500,000	9	0.250	0.003	0.006
		JZ1 - F !B - In-Service Failure- Capacitors Replacement - Add Inc	$230,000	$0	$230,000	10	0.400	0.001	0.004
		JZ3 - F !B - Replace Facilities- Pole Replacement Add Inc	$765,000	$0	$765,000	15	1.000	0.001	0.001
		JZ4 - F !B - Replace Facilities-In-Service Misc OP Failure Associated with Storms - Piority	$260,000	$0	$260,000	15	1.000	0.001	0.004
		JZ6 - F ! - Distribution-Outside Plant Branch Fusing/Reclosers	$828,000	$0	$828,000	10	0.400	0.001	0.001
		JZ7 - F ! - System Reinforcement-Distribution-Poor Performing 26kV OH Circuits	$400,000	$0	$400,000	15	1.000	0.001	0.002
		JZ9 - F !B - Reliability Improvement- Reactive- New Capacitor Installations Add Inc	$648,600	$0	$648,600	20	2.000	0.001	0.001
		MWI1B - Distribution - Environmental / Regulatory- Facility Relocation - Add Inc.	$301,000	$0	$301,000	20	2.000	0.001	0.003
		POM3 - Replacement of 26kV Oil Circuit Breakers	$2,400,000	$0	$2,400,000	9	0.250	0.002	0.001
	Elec. Distn. – EDn Total		**$71,363,257**	**$0**	**$71,363,257**	**513**	**34.060**	**0.050**	**0.070**
Deferred - Discretionary - Priority Total			**$71,363,257**	**$0**	**$71,363,257**	**513**	**34.060**	**0.050**	**0.070**
	Cust. Ops. – CO								
		RB-UOS-14B - F ! - Customer Operations Passenger Increment 1 - HYBRIDS	$78,606	$0	$78,606	25	4.000	0.093	1.188
		RB-UOS-14C - F ! - Customer Operations Passenger Add'l Increment	$19,097	$0	$19,097	10	0.400	0.113	5.940
		RB-UOS-15B - F ! - Customer Ops Vans/Light Trucks Add'l Increment - HYBRIDS	$131,010	$0	$131,010	25	4.000	0.100	0.763
		RB-UOS-15C - F ! - Customer Ops Vans/Light Trucks Priority - HYBRIDS	$183,414	$0	$183,414	25	4.000	0.103	0.563
	Cust. Ops. – CO Total		**$412,127**	**$0**	**$412,127**	**85**	**12.400**	**0.410**	**8.454**
	Elec. Del. Other – EDy								
		SLS-UOS-4B - Electric Delivery PC's and Printers and Plotters Priority	$404,746	$0	$404,746	15	1.000	0.020	0.050
	Elec. Del. Other – EDy Total		**$404,746**	**$0**	**$404,746**	**15**	**1.000**	**0.020**	**0.050**
	Elec. Distn. – EDn								
		2008-Edn-CS-KJT-S-17 - Install 8th 13kV Feeder at Crosswicks Substation	$100,000	$0	$100,000	16	1.000	0.005	0.046
		BJW-1B - PSE&G Street and Area Lighting Capital Expenditure Plan - Add Inc	$1,049,547	$0	$1,049,547	20	2.000	1.251	1.192
		CDT-14 - Central Division Unfinished SCADA Installations	$100,000	$0	$100,000	9	0.250	0.004	0.037
		DSB5BB-NWP XFRM Inc - Network Protector/Transformer Reconditioning - Recommended Increment	$568,800	$0	$568,800	0	0.000	0.138	0.242
		DSB6A-PPC - Poor Performing 26kV UG	$102,000	$0	$102,000	6	0.100	0.002	0.018
		GGW3 - Distribution SCADA OSI Software Capital Blanket	$328,530	$0	$328,530	8	0.200	0.027	0.082
		JGH-3 - East Orange Substation Relay replacment and SCADA installation	$318,000	$0	$318,000	0	0.000	0.625	1.965
		JH-1 - 26kV Switching Station Automation	$1,575,000	$0	$1,575,000	15	1.000	0.059	0.038
		KJT-C-4 - Install Eight 13-kV Feeder At Doremus Place I Substation	$100,000	$0	$100,000	20	2.000	0.003	0.028
		MWI6A - Support Facilities / Miscellaneous renovations	$950,000	$0	$950,000	6	0.100	0.625	0.658
		RB-UOS-5BB - Electric Distribution Passenger Increment 1	$38,194	$0	$38,194	10	0.400	0.585	15.324
		RB-UOS-5C - Electric Distribution Passenger Increment 2 - HYBRIDS	$447,751	$0	$447,751	25	4.000	0.640	1.429
		RB-UOS-5D - Electric Distribution Passenger Add'l Increment - HYBRIDS	$524,040	$0	$524,040	25	4.000	0.636	1.215
		RB-UOS-6B - Electric Distribution Vans/Light Trucks Increment 1	$341,547	$0	$341,547	10	0.400	0.258	0.756
		RB-UOS-6C - Electric Distribution Vans/Light Trucks Add'l Increment 2	$493,330	$0	$493,330	10	0.400	0.151	0.307
		RB-UOS-6D - Electric Distribution Vans/Light Trucks Priority	$1,144,228	$0	$1,144,228	10	0.400	0.654	0.571
		RB-UOS-7B - Electric Distribution Service Vehicles Add'l Increment 1	$848,460	$0	$848,460	10	0.400	0.055	0.065
		RB-UOS-7C - Electric Distribution Service Vehicles Add'l Increment 2	$870,472	$0	$870,472	10	0.400	0.158	0.182
		RB-UOS-7D - Electric Distribution Service Vehicles Priority	$1,341,658	$0	$1,341,658	10	0.400	0.081	0.060
		RB-UOS-8B - Electric Distribution Aerial Lifts Add'l Increment 1	$1,414,284	$0	$1,414,284	10	0.400	0.202	0.143
		RB-UOS-8C - Electric Distribution Aerial Lifts Add'l Increment 2	$524,415	$0	$524,415	10	0.400	0.138	0.264
		RB-UOS-8D - Electric Distribution Aerial Lifts Priority	$656,953	$0	$656,953	10	0.400	0.181	0.275
		RB-UOS-9Bed - Electric Distribution Construction Misc Add'l Increment 1	$593,066	$0	$593,066	10	0.400	0.038	0.064

Portfolio Summary Report - 2008 E.D. Capex - 9/13/07

Optimization Result	LOB	Investment ID Number and Name	Investment Capex (Total)	Investment Capex (Selected)	Investment Capex (Deferred)	Highest Basic Risk	Highest Risk ICI	Strategic Objective Score	Value / Dollar Ratio (SV / $MM Cost)
		RB-UOS-9C - Electric Distribution Construction Misc Add'l Increment 2	$235,568	$0	$235,568	10	0.400	0.032	0.134
		RB-UOS-9D - Electric Distribution Construction Misc Priority	$153,434	$0	$153,434	10	0.400	0.101	0.658
		SLS-UOS-2A - Electric Distribution MDT's - Priority	$686,154	$0	$686,154	15	1.000	0.027	0.039
	Elec. Distn. – EDn Total		**$15,505,431**	**$0**	**$15,505,431**	**295**	**20.850**	**6.674**	**25.791**
	Util. Ops. Svcs. – UOS								
		RB-UOS-18B - F ! - UOS Vans/Light Trucks Add'l Increment	$168,580	$0	$168,580	10	0.400	0.035	0.205
		RB-UOS-19B - F ! - UOS Service Vehicles Add'l Increment	$363,642	$0	$363,642	10	0.400	0.034	0.094
		RB-UOS-20D - UOS Construction Misc Priority	$172,359	$0	$172,359	10	0.400	0.034	0.195
		SLS-UOS-7B - UOS PC's priority	$118,329	$0	$118,329	15	1.000	0.027	0.227
	Util. Ops. Svcs. – UOS Total		**$822,910**	**$0**	**$822,910**	**45**	**2.200**	**0.129**	**0.722**
	Util. Support – US								
		RB-UOS-16B - Utility Support Passenger Priority	$26,202	$0	$26,202	10	0.000	0.032	1.238
	Util. Support – US Total		**$26,202**	**$0**	**$26,202**	**10**	**0.000**	**0.032**	**1.238**
Deferred - Mandated - Priority Total			**$17,171,416**	**$0**	**$17,171,416**	**450**	**36.450**	**7.266**	**36.254**
Optimized - Discretionary - Priority									
	Elec. Del. Other – EDy								
		MWI5 - Support Facilities / Tools& Equipment - Asset Management	$100,000	$100,000	$0	10	0.400	0.050	0.500
	Elec. Del. Other – EDy Total		**$100,000**	**$100,000**	**$0**	**10**	**0.400**	**0.050**	**0.500**
	Elec. Distn. – EDn								
		MWI3 - Support Facilities / Miscellaneous Improvements - Distribution Capital Tools, Furniture & Equipment	$2,300,000	$2,300,000	$0	10	0.400	0.547	0.238
		RWW-101 - Locally-Specific Reliability Improvement Project	$22,000,000	$22,000,000	$0	15	1.000	0.814	0.037
	Elec. Distn. – EDn Total		**$24,300,000**	**$24,300,000**	**$0**	**25**	**1.400**	**1.361**	**0.275**
Optimized - Discretionary - Priority Total			**$24,400,000**	**$24,400,000**	**$0**	**35**	**1.800**	**1.411**	**0.775**
Optimized - Mandated - Forced Priority									
	Elec. Distn. – EDn								
		Edn-M-JFL-44 - Essex-Bayway 26-kV Network Split.	$8,763,000	$8,763,000	$0	16	1.000	0.001	0.000
		Edn-P-JFL-43 - Bergen 26-kV Grid Reliabilty Improvements.	$4,500,000	$4,500,000	$0	16	1.000	0.002	0.000
		Edn-P-JFL-45 - South Waterfront Switching Station Reinforcement.	$13,302,000	$13,302,000	$0	16	1.000	0.002	0.000
		KJT-C-18 - Install Edison 26-13kV Unit Substation	$610,000	$610,000	$0	12	0.500	0.000	0.000
		KJT-C-3 - Bridgewater-Lake Nelson-Franklin-Rutgers 69-kV	$15,813,000	$15,813,000	$0	20	2.000	0.003	0.000
		KJT-S-14 - Crosswicks T1 and 7th Feeder	$5,337,000	$5,337,000	$0	20	2.000	0.006	0.001
		KJT-S-16 - Reinforcement Of Cinnaminson Substation	$14,383,000	$14,383,000	$0	20	2.000	0.003	0.000
		RWW-1 - Newark Breaker Station Reliability Improvement (EPRI Tailored Collaboration Project)	$120,000	$120,000	$0	20	2.000	0.001	0.008
	Elec. Distn. – EDn Total		**$62,828,000**	**$62,828,000**	**$0**	**140**	**11.500**	**0.018**	**0.010**
Optimized - Mandated - Forced Priority Total			**$62,828,000**	**$62,828,000**	**$0**	**140**	**11.500**	**0.018**	**0.010**
Optimized - Mandated - Legal									
	Elec. Distn. – EDn								
		BJW-1A - PSE&G Street and Area Lighting Capital Expenditure Plan	$17,000,000	$17,000,000	$0	20	2.000	1.080	0.061
		Edn-P-JFL-33 - Service to JP Morgan.	$4,366,000	$4,366,000	$0	16	1.000	0.001	0.000
		Edn-P-JFL-36 - Service to Red Bull Park, Harrison.	$3,100,000	$3,100,000	$0	16	1.000	0.001	0.000
		Edn-P-JFL-42 - Service to Hudson Exchange.	$620,000	$620,000	$0	16	1.000	0.001	0.001
		JD_NB_1 - New Business Capital Blanket	$71,000,000	$71,000,000	$0	25	4.000	0.314	0.004
		JMC2 - Meter Project - New Business	$3,888,000	$3,888,000	$0	10	0.400	0.001	0.000
		JMC3 - Meter Project - Replace Facilities	$6,679,000	$6,679,000	$0	10	0.400	0.001	0.000
		JZ8-F - F ! - System Reinforcement-Legal-Poor Performing 4/13kV OH / UG Circuits	$2,200,000	$2,200,000	$0	20	2.000	0.258	0.117
		JZ9 - F !A - Reliability Improvement- Reactive- New Capacitor Installations	$345,000	$345,000	$0	20	2.000	0.001	0.003
		KJT-S-7 - Service to Robert Wood Johnson Hospital	$3,920,000	$3,920,000	$0	20	2.000	0.001	0.000
		KJT-S-9A - Service To Cooper Hospital and Camden Iron & Metal	$6,276,000	$6,276,000	$0	25	4.000	0.003	0.000
		MWI1A - Distribution - Environmental / Regulatory- Facility Relocation	$9,000,000	$9,000,000	$0	25	4.000	0.002	0.000
		MWI2B - Environmental & Regulatory Class A-B Fire Systems - Base Work	$800,000	$800,000	$0	25	4.000	0.367	0.459
	Elec. Distn. – EDn Total		**$129,194,000**	**$129,194,000**	**$0**	**248**	**27.800**	**2.031**	**0.648**
Optimized - Mandated - Legal Total			**$129,194,000**	**$129,194,000**	**$0**	**248**	**27.800**	**2.031**	**0.648**
Optimized - Mandated - Minimum									
	Cust. Ops. – CO								
		RB-UOS-14A - F ! - Customer Operations Passenger Base Minimum - HYBRIDS	$675,000	$675,000	$0	25	4.000	0.112	0.166
		RB-UOS-15A - F ! - Customer Operations Vans/Light Trucks Base Minimum - HYBRIDS	$164,979	$164,979	$0	25	4.000	0.076	0.462
		SLS-UOS-6A - Customer Operations PC's Base Minimum	$194,279	$194,279	$0	15	1.000	0.015	0.076
	Cust. Ops. – CO Total		**$1,034,258**	**$1,034,258**	**$0**	**65**	**9.000**	**0.203**	**0.704**
	Elec. Del. Other – EDy								
		SLS-UOS-4AA - Electric Delivery PC's and Printers and Plotters Base Minimum	$473,780	$473,780	$0	15	1.000	0.018	0.037
	Elec. Del. Other – EDy Total		**$473,780**	**$473,780**	**$0**	**15**	**1.000**	**0.018**	**0.037**
	Elec. Distn. – EDn								
		BJW-2 - Street Lighting Replace Facilities Capital Expenditures	$2,100,000	$2,100,000	$0	20	2.000	0.002	0.001
		CDT-3 - Failed Distribution Substation Equipment - Other than transformers	$6,000,000	$6,000,000	$0	6	0.100	0.074	0.012
		CDT-5 - Critical Distribution Substation Spare Equipment - Other than transformers	$340,000	$340,000	$0	9	0.250	0.001	0.003
		DJF-4A - Distribution Inside Plant Critical Spare Transformers	$1,300,000	$1,300,000	$0	20	2.000	0.001	0.001
		DJF-5A - Anticipated Failures and Replacements of Distribution Inside Plant 26-4KV Transformers	$1,500,000	$1,500,000	$0	20	2.000	0.001	0.001
		DSB4AA-Def Base - Defective UG (RF blanket) - Base Work	$34,616,409	$34,616,409	$0	25	4.000	0.020	0.001
		DSB5AA-NWP XFRM Base - Nwtwork Protector/Transformer Reconditioning - Base Work	$1,750,000	$1,750,000	$0	9	0.250	0.313	0.179

Portfolio Summary Report - 2008 E.D. Capex - 9/13/07

Optimization Result	LOB	Investment ID Number and Name	Investment Capex (Total)	Investment Capex (Selected)	Investment Capex (Deferred)	Highest Basic Risk	Highest Risk ICI	Strategic Objective Score	Value / Dollar Ratio (SV / $MM Cost)
		Edn-JFL-46 - Statewide System Reinforcement Blanket Account-Essential Work.	$12,000,000	$12,000,000	$0	20	2.000	0.006	0.000
		Edn-p-JFL-50 - Installation of 8th 13-kV feeder @ Homestead Substation.	$1,500,000	$1,500,000	$0	16	1.000	0.001	0.001
		JH-4 - 896MHz Radio Upgrade	$1,660,000	$1,660,000	$0	9	0.250	0.625	0.377
		JZ1 - F !A - In-Service Failure-Minimum - Capacitors Replacement	$2,200,000	$2,200,000	$0	10	0.400	0.005	0.002
		JZ2 - F ! - In-Service Failure - Minimum - Misc. OH Equipment Does Not Include Storms	$17,000,000	$17,000,000	$0	20	2.000	0.003	0.000
		JZ3 - F !A - Replace Facilities-In-Service Failure - Minimum-Pole Replacement	$1,800,000	$1,800,000	$0	15	1.000	0.001	0.001
		JZ4 - F !A - Replace Facilities-In-Service Misc OP Failure Associated with Storms - Minimum	$1,600,000	$1,600,000	$0	15	1.000	0.003	0.002
		JZ5 - F ! - System Reinforcement - Asset Refurbishment - Pole Reinforcement	$1,575,000	$1,575,000	$0	15	1.000	0.001	0.001
		MWI6 - Support Facilities / Roof Renovations at sub stations and HQ	$1,930,400	$1,930,400	$0	20	2.000	0.630	0.326
		MWI7 - Support Facilities / Firewall renovation Paterson/Metuchon Stations	$1,150,000	$1,150,000	$0	16	1.000	0.321	0.279
		RB-UOS-5A - Electric Distribution Passenger Base Minimum - HYBRIDS	$1,213,820	$1,213,820	$0	25	4.000	0.446	0.367
		RB-UOS-6A - Electric Distribution Vans/Light Trucks Base Minimum	$504,625	$504,625	$0	10	0.400	0.470	0.931
		RB-UOS-7A - Electric Distribution Service Vehicles Base Minimum	$2,379,879	$2,379,879	$0	10	0.400	0.147	0.062
		RB-UOS-8A - Electric Distribution Aerial Lifts Base Minimum - HYBRIDS	$6,519,788	$6,519,788	$0	25	4.000	0.248	0.038
		RB-UOS-9A - Electric Distribution Construction Misc Base Minimum	$301,606	$301,606	$0	10	0.400	0.031	0.102
		SLS-UOS-2 - Electric Distribution MDT's Base Minimum	$755,346	$755,346	$0	15	1.000	0.032	0.043
		UOS-SLS-6 - F ! - Electric Token Ring Replacement Base	$164,000	$164,000	$0	10	0.400	0.027	0.164
		WJL CAP2 DISP Animal Proofing - Substation Animal Proofing	$400,000	$400,000	$0	9	0.250	0.001	0.002
	Elec. Distn. – EDn Total		**$102,260,873**	**$102,260,873**	**$0**	**379**	**33.100**	**3.408**	**2.894**
	Gas Del. – GDy								
		RB-UOS-1A - Gas Delivery Passenger Base Minimum - HYBRIDS	$445,434	$445,434	$0	25	4.000	0.052	0.117
		RB-UOS-1B - Gas Delivery Passenger - HYBRIDS	$233,871	$233,871	$0	25	4.000	0.040	0.171
		RB-UOS-2A - Gas Delivery Vans/Light Trucks Base Minimum	$3,062,915	$3,062,915	$0	10	0.400	0.104	0.034
		RB-UOS-2B - Gas Delivery Vans/Light Trucks	$1,526,387	$1,526,387	$0	10	0.400	0.065	0.042
		RB-UOS-3A - Gas Delivery Service Vehicles Base Minimum	$1,659,564	$1,659,564	$0	10	0.400	0.062	0.037
		RB-UOS-3B - Gas Delivery Service Vehicles	$464,320	$464,320	$0	10	0.400	0.036	0.078
		RB-UOS-4B - Gas Delivery Aerial Lifts	$174,805	$174,805	$0	10	0.400	0.029	0.166
		RB-UOS-5AA - Gas Delivery Construction & Misc Vehicles Base Minimum	$1,783,859	$1,783,859	$0	10	0.400	0.067	0.037
		RB-UOS-5B - Gas Delivery Construction & Misc Vehicles	$1,245,061	$1,245,061	$0	10	0.400	0.054	0.043
		SLS-UOS-1A - Gas Delivery PC's and Printers and Plotters Base Minimum	$189,646	$189,646	$0	15	1.000	0.014	0.073
		SLS-UOS-3 - Gas Delivery MDT's Base Minimum	$973,013	$973,013	$0	15	1.000	0.016	0.016
	Gas Del. – GDy Total		**$11,758,875**	**$11,758,875**	**$0**	**150**	**12.800**	**0.538**	**0.816**
	Util. Ops. Svcs. – UOS								
		KCH-UOS-1 - F ! - UOS Support Facilities Blanket - Base Minimum	$1,280,000	$1,280,000	$0	10	0.400	0.209	0.164
		RB-UOS-17A - UOS Passenger Base Minimum - HYBRIDS	$311,916	$311,916	$0	25	4.000	0.062	0.198
		RB-UOS-18A - F ! - UOS Vans/Light Trucks Base Minimum	$176,704	$176,704	$0	10	0.400	0.037	0.212
		RB-UOS-19A - F ! - UOS Service Vehicles Base Minimum	$39,120	$39,120	$0	10	0.400	0.027	0.687
		RB-UOS-20A - UOS Construction Misc Base Minimum - HYBRIDS	$138,156	$138,156	$0	10	0.400	0.034	0.246
		SLS-UOS-7A - UOS PC's Base Minimum	$92,973	$92,973	$0	15	1.000	0.023	0.250
	Util. Ops. Svcs. – UOS Total		**$2,038,869**	**$2,038,869**	**$0**	**80**	**6.600**	**0.393**	**1.756**
	Util. Support – US								
		RB-UOS-16A-F! - Utility Support Passenger Base Minimum	$96,632	$96,632	$0	10	0.000	0.052	0.534
		SLS-UOS-8A - Utility Support PC's Base Minimum	$41,512	$41,512	$0	15	1.000	0.031	0.738
	Util. Support – US Total		**$138,144**	**$138,144**	**$0**	**25**	**1.000**	**0.082**	**1.272**
Optimized - Mandated - Minimum Total			**$117,704,799**	**$117,704,799**	**$0**	**714**	**63.500**	**4.641**	**7.479**
Optimized - Mandated - Priority									
	Cust. Ops. – CO								
		SLS-UOS-6B - Customer Operations PC's -Priority	$247,264	$247,264	$0	15	1.000	0.018	0.071
	Cust. Ops. – CO Total		**$247,264**	**$247,264**	**$0**	**15**	**1.000**	**0.018**	**0.071**
	Elec. Distn. – EDn								
		2008-EDN-CS-KJT-C-32 - BENNETTS LANE - BRIDGEWATER 69-KV NETWORK	$450,000	$450,000	$0	12	0.500	0.001	0.002
		2008-Edn-CS-KJT-S-24 - Reinforcement Of 69-KV Supply To Penns Neck Substation	$350,000	$350,000	$0	20	2.000	0.003	0.008
		2008-EDN-CS-KJT-S-31 - BENNETTS LANE - LAWRENCE 69 KV NETWORK	$450,000	$450,000	$0	12	0.500	0.001	0.002
		2008-EDN-CS-KJT-S-33 - SOUTH HAMPTON 69 KV SUBSTATION CONVERSION	$450,000	$450,000	$0	16	1.000	0.001	0.002
		DJF-8 - NJ EMP Initiative Replacements of Older High Loss Distribution Inside Plant 26-4KV Transformers	$6,000,000	$6,000,000	$0	16	1.000	0.006	0.001
		Edn-M-JFL-32 - Hawthorne Substation Reinforcement.	$4,000,000	$4,000,000	$0	16	1.000	0.002	0.000
	Elec. Distn. – EDn Total		**$11,700,000**	**$11,700,000**	**$0**	**92**	**6.000**	**0.013**	**0.016**
	Gas Del. – GDy								
		SLS-UOS-1B - Gas Delivery PC's - priority	$203,186	$203,186	$0	15	1.000	0.017	0.082
		SLS-UOS-3A - Gas Delivery MDT's - priority	$324,338	$324,338	$0	15	1.000	0.005	0.014
	Gas Del. – GDy Total		**$527,524**	**$527,524**	**$0**	**30**	**2.000**	**0.021**	**0.097**
	Util. Support – US								
		SLS-UOS-8B - Utility Support PC's Priority	$52,834	$52,834	$0	15	1.000	0.027	0.509
	Util. Support – US Total		**$52,834**	**$52,834**	**$0**	**15**	**1.000**	**0.027**	**0.509**
Optimized - Mandated - Priority Total			**$12,527,622**	**$12,527,622**	**$0**	**152**	**10.000**	**0.079**	**0.693**
Grand Total			**$435,189,094**	**$346,654,421**	**$88,534,673**	**2252**	**185.110**	**15.496**	**45.929**